	Application No.	Applicant(s)
Notice of Allowability	09/965,031	PACHET ET AL.
	Examiner	Art Unit	
	Kuen S. Lu	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *April 20, 2006*.

2. ☒ The allowed claim(s) is/are *1-2, 4-6 and 9-38 (renumbered to 1-35)*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the

          International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
    Paper No./Mail Date *9/27/01*

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413),
    Paper No./Mail Date *6/6/2006* .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth

in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114.

2. After a thorough search and examination of the present application, a telephone

interview conducted June 6, 2006, and in light of the prior art made of record and

Applicant's response of April 20, 2006, Claims 1-2, 4-6 and 9-38 (renumbered to 1-35)

are allowed.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d), which papers have been placed of record in the file. The certified

copy of parent Application: EUROPEAN PATENT OFFICE (EPO), No. 00 402 692.8,

filed on September 29, 2000, has been filed.

Information Disclosure Statement

4. The Information Disclosure Statements filed on September 21, 2001 has been

considered and signed as attached.

Drawings

5. The drawings were received on September 27, 2001. These drawings are accepted.

Claim Objections

6. Claims 1, 19, 21-24 and 30-31 were previously objected to, in the Office Action for Final Rejection dated October 20, 2006, because of informalities. In view of Examiner's Amendments made to the claims as listed below, the objection is hereby withdrawn.

Examiner's Amendments

7. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this Examiner's amendment, listed below, was given in a telephone interview with Mr. Bradley D. Lytle, (Registration Number 40,073) on June 6, 2006. The interview summary is attached.

8.1. At Page 1, please insert the section of CROSS REFERENCE TO RELATED APPLICATION after the end of the TITLE OF THE INVENTION section and before the beginning of the FIELD OF THE INVENTION section as following:

<u>CROSS REFERENCE TO RELATED APPLICATION</u>

<u>The present application claims priority to and contains related subject matter to that disclosed in EUROPEAN PATENT OFFICE (EPO) Application, No. 00 402 692.8, filed on September 29, 2000.</u>

8.2. Please amend claims 1, 19, 21-24, 30-31 and 38 as follow:

Claim 1 (Currently Amended): A method of generating sequencing information

representing a sequence of items selected in a database, each of the items comprising

a set of descriptors, said method comprising the steps of:

   specifying a length of said sequence and at least one of said descriptors;

   applying similarity relation techniques between said items of said sequence under

construction, in which, for at least one item to appear in the sequence,

      wherein said item is chosen from said database on the basis of a similarity

   relation with a neighboring item of said sequence with which said chosen item shall

   be associated, so as to create a morphological continuity along said sequence, and

      said applying step comprises modeling each of said descriptors in a desired

   sequence as a constrained variable; and

   producing and storing in memory said associated items as at least part of said

generated sequence, said sequence thereby having said morphological continuity.

Claim 19 (Currently Amended): A method of producing a sequence of items out of a

database by specifying partial information, said method comprising the steps of:

   introducing a global continuity constraint allowing to compute a morphing between

items of said sequence;

   taking as input partial information about arbitrary items in said sequence to be

produced; and

applying similarity relation techniques between said items of said sequence under

construction, in which, for at least one item to appear in the sequence,

wherein said item is chosen from said database on the basis of a similarity

relation with a neighboring item of said sequence with which said chosen item shall

be associated, so as to create a morphological continuity along said sequence, and

said applying step comprises modeling each of said descriptors in a desired

sequence as a constrained variable; and

producing and storing in memory the associated items as the sequence of items.

Claim 21 (Currently Amended): A method of generating sequencing information

representing a sequence of items selected in a database, each of the items comprising

a set of descriptors, said method comprising the steps of:

specifying a length of said sequence and at least one of said descriptors;

applying similarity relation techniques between said items of said sequence under

construction, in which, for at least one item to appear in the sequence,

said item is chosen from said database on the basis of a similarity relation with a

neighboring item of said sequence with which said chosen item shall be associated,

so as to create a morphological continuity along said sequence; and

producing and storing in memory said associated items as at least part of said

generated sequence, said sequence thereby having said morphological continuity,

wherein said descriptors are expressed in terms of descriptor/value pairs

respectively, and each of said values for each descriptor is selected from

descriptor/value lists, and

wherein said applying step comprises modeling each of said descriptors in a

desired sequence as a constrained variable.

Claim 22 (Currently Amended): An apparatus for generating sequencing information

representing a sequence of items selected in a database, each of the items comprising

a set of descriptors, said apparatus comprising:

specifying means for specifying a length of said sequence and at least one of said

descriptors;

applying means for applying similarity relation techniques between said items of said

sequence under construction, in which, for at least one item to appear in the sequence,

said item is chosen from said database on the basis of a similarity relation

with a neighboring item of said sequence with which said chosen item shall be

associated, so as to create a morphological continuity along said sequence; and

producing and storing means for producing and storing in memory said associated

items as at least part of said generated sequence,

said sequence thereby having said morphological continuity, and

wherein said applying means models each of said descriptors in a desired

sequence as a constrained variable.

Claim 23 (Currently Amended): A method of generating sequencing information

representing a sequence of items selected in a database, each of the items comprising

a set of descriptors, said method comprising the steps of:

specifying at least a partial description of at least one said item to appear in said

sequence;

applying similarity relation techniques between said items of said sequence under

construction, in which, for at least one item to appear in the sequence,

said item is chosen from said database on the basis of a similarity relation with a

neighboring item of said sequence with which said chosen item shall be associated,

so as to create a morphological continuity along said sequence; and

producing and storing in memory said associated items as at least part of said

generated sequence, said sequence thereby having said morphological continuity, and

wherein said applying step comprises modeling each of said descriptors in a

desired sequence as a constrained variable.

Claim 24 (Currently Amended): An apparatus for generating sequencing information

representing a sequence of items selected in a database, each of the items comprising

a set of descriptors, said apparatus comprising:

specifying means for specifying at least a partial description of at least one said item

to appear in said sequence;

applying means a processor for applying similarity relation techniques between said

items of said sequence under construction, in which, for at least one item to appear in

the sequence, said item is chosen from said database on the basis of a similarity
relation with a neighboring item of said sequence with which said chosen item shall be
associated, so as to create a morphological continuity along said sequence; and

producing means for producing said associated items as at least part of said
generated sequence,

said sequence thereby having said morphological continuity, and

wherein said processor is configured to model each of said descriptors in a
desired sequence as a constrained variable.

Claim 30 (Currently Amended): A method of generating sequencing information
representing a sequence of music titles selected in a database, each of the music titles
comprising a set of descriptors, said method comprising the steps of:

specifying a length of said sequence and at least one of said descriptors;

applying similarity relation techniques between said music titles of said sequence
under construction, in which, for at least one music title to appear in the sequence, said
music title is chosen from said database on the basis of a similarity relation with a
neighboring music title of said sequence with which said chosen music title shall be
associated, so as to create a morphological continuity along said sequence; and

producing and storing in memory said associated music titles as at least part of said
generated sequence,

said sequence thereby having said morphological continuity, and

<u>wherein said applying step comprises modeling each of said descriptors in a
desired sequence as a constrained variable</u>.

Claim 31 (Currently Amended): An apparatus for generating sequencing information
representing a sequence of music titles selected in a database, each of the music titles
comprising a set of descriptors, said apparatus comprising:

specifying means for specifying a length of said sequence and at least one of said
descriptors;

~~applying means~~ <u>a processor</u> for applying similarity relation techniques between said
music titles of said sequence under construction, in which, for at least one music title to
appear in the sequence, said music title is chosen from said database on the basis of a
similarity relation with a neighboring music title of said sequence with which said chosen
music title shall be associated, so as to create a morphological continuity along said
sequence; and

producing <u>and storing</u> means for producing <u>and storing in memory</u> said associated
music titles as at least part of said generated sequence,

said sequence thereby having said morphological continuity<u>, and</u>

<u>wherein said processor is configured to model each of said descriptors in a
desired sequence as a constrained variable</u>.

Claim 38 (Currently Amended): A method of generating sequencing information representing a sequence of items selected in a database, each of the items comprising a set of descriptors, said method comprising the steps of:

specifying a length of said sequence and at least one of said descriptors;

applying similarity relation techniques between said items of said sequence under construction, in which, for at least one item to appear in the sequence,

said item is chosen from said database on the basis of a similarity relation with a neighboring item of said sequence with which said chosen item shall be associated, so as to create a morphological continuity along said sequence, and, on the basis of properties of dissimilarities, so as to create a variation along said sequence; and

producing and storing in memory said associated items as at least part of said generated sequence, said sequence thereby having said morphological continuity, and wherein said applying step comprises modeling each of said descriptors in a desired sequence as a constrained variable.

Reasons for Allowance

9. The following is the Examiner's statement of reasons for allowance:

In the Examiner's Office Action for Final Rejection of October 20, 2005, U.S.C. § 103, rejections was based primarily on Linden et al: "COLLABORATIVE RECOMMENDATIONS USING ITEM-TO-ITEM SIMILARITY MAPPINGS", U.S. Patent 6,266,649, issued July 24, 2001, hereafter "Linden"; and in view of Sumita et al.: "INFORMATION FILTERING SYSTEM AND METHOD", U.S. Patent 6,581,207, issued June 17, 2003, hereafter "Sumita".

Applicant argued, in the Remarks filed April 20, 2006, that in the presently claimed

invention, where a particular item is chosen from the database on the basis of a

similarity relation with a neighboring item of the sequence with which the chosen item is

associated so as to create a morphological continuity along the sequence. However,

the scores of Linden's items can't be assimilated to the descriptors stored in the

database and further Linden's list is created on the fly and does not correspond to with

sequence of items selected in the database. Applicant further concluded that Linden

does not provide incentive to look for a morphological continuity in the sequence.

Based on the Applicant's Amendments, filed on April 20, 2006 and a telephone

interview conducted on June 6, 2006 authorizing the Examiner's Amendments as

previously described, the Application clearly distinguishes from prior art.

Further based on an update search conducted, the claims filed on April 20, 2006 and

amended by the Examiner's Amendments as described above, is hereby considered

and accepted.

The prior art in domains (EAST, NPL-ACM, Google, NPL-IEEE) searches have been

updated. The prior art searched and investigated in domains (EAST, NPL-ACM,

Google, NPL-IEEE) does not fairly teach or suggest the following claimed subject matter

of:

choosing items from said database on the basis of a similarity relation with a

neighboring item of said sequence with which said chosen item shall be

associated, so as to create a morphological continuity along said sequence, and,

on the basis of properties of dissimilarities, so as to create a variation along said

sequence; and

producing said associated items as at least part of said generated sequence, said

sequence thereby having said morphological continuity, and wherein said

applying step comprises modeling each of said descriptors in a desired sequence

as a constrained variable

as claimed in each of the independent Claims 1, 19, 21-24, 30-31 and 38.

Claims in the groups (2, 4-6, 9-18, 25 and 32), (20, 26 and 33), (34 and 36-37), (27

and 35), 28 and 29 are dependent on the Claims 1, 19, 21, 22, 23 and 24, respectively,

and also distinct from the prior art for the same reason.

After a search and a thorough examination of the present Application and in light of

the prior arts, Claims 1-2, 4-6 and 9-38 are allowed.

Conclusions

10. Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments
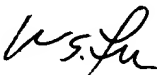
on Statement of Reasons for Allowance."

Contact Information

11. Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Kuen S. Lu whose telephone number is (571) 272-

4114. The examiner can normally be reached on Monday-Friday (8:30 am - 5:30 pm).

If attempts to reach the examiner by telephone pre unsuccessful, the examiner's
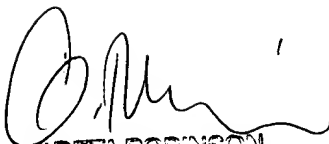
Supervisor, John Cottingham, can be reached on (571) 272-7079. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for Page 13

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact he Electronic

Business Center (EBC) at 886-217-9197 (toll-free).

Kuen S. Lu,

Patent Examiner,

June 14, 2006

GRETA ROBINSON
PRIMARY EXAMINER